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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			EXAMINER JIANG, YONG HANG	
			ART UNIT 2612	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/506,951

Applicant(s)

AUTRET ET AL.

Examiner

Yong Hang Jiang

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/5/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 38-39 are objected to because of the following informalities: the citation "compring" on line 1 of claim 38 should be --comprising--. Appropriate correction is required.

Claim 39 depends on claim 38; therefore it suffers the same deficiency.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 30-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 30 and 36, a computer program must be encoded or embodied in a computer readable medium in order to meet the statutory requirements of 35 U.S.C. 101.

Claims 31-35, and 37-41 depend on claims 30 and 36 respectively; therefore they suffer the same deficiency.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 20-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "the sending" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 21-29 depend on claim 20; therefore they suffer the same deficiency

Claim 21 recites the limitation "the first command" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitations "the generation" and "the transmission" in lines 3 and 4 respectively. There is insufficient antecedent basis for these limitations in the claim.

Claim 31 recites the limitation "the first command" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 37 recites the limitation "the first command" in line 2. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 42, the limitation "a memory containing an operating program for a bidirectional object" rendered the claim indefinite; additional limitations citing execution of the operating program on a control unit such as a microprocessor is required in the claim in order to render the claim definite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 20-24, 26-27, 30-34, 36-40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liotine et al. (US 4,529,980) in view of Heitschel et al. (US 5,576,701).

Regarding claim 20, Liotine et al. disclose a method for reprogramming bidirectional objects (via transmitter 9 and receiver 30) that can be used as a garage door opening system, said objects containing a common key (via code stored on non-volatile memories 34 and 13), at least two objects being paired (transmitter 9 and receiver 39) to allow the sending of a command from one object of the pair to the other

object of the pair and the execution of the command by the other object (receiver 39), the method comprising: providing the objects with a new common key (via program mode switch 41 on receiver 39 is closed, a new code is generated and stored on memory 34 and then transfer the new code to transmitter 9 via light emitting diode 36). (See Col. 1, line 33 to Col. 2, line 6; Col. 2, line 44 to Col. 3, line 8; Col. 4, line 40-61; and Col. 5, lines 16-34; and Figures 1-4)

But Liotine et al. fail to explicitly disclose when a command is sent from one object to another object with which it is paired, verifying that the two objects contain the new common key is done; and refusing by the other object to execute the command if the two objects do not contain the new common key.

Heitschel et al. teach a method of operating a door actuating system using a remote transmitter (24). The remote transmitter (24) transmits a door actuation signal comprising a sequence of coded words, which must match a sequence of allowable coded words stored in a controlled unit (38) of the actuating system in order to operate the door. (See Col. 3, lines 38-56)

From the teachings of Heitschel et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Liotine et al. to include verification that the two objects contain the new common key when a command is sent from one object to another object with which it is paired; and refusing by the other object to execute the command if the two objects do not contain the new common key in order to prevent unauthorized commands from other transmitters.

Regarding claim 21, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose the step of verifying for two given objects is implemented only when a first command is given following providing of the new common key.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include the step of verifying for two given objects is implemented only when a first command is given following providing of the new common key in order to make sure there are no problems with the new common key to be used on the system.

Regarding claim 22, Liotine et al. disclose the step of providing of the new common key comprises: generation of a new common key (via program mode switch 41 on receiver 39 is closed, a new code is generated and stored on memory 34); and transmission of the new common key generated (via light emitting diode 36). (See Col. 4, line 40-61; and Col. 5, lines 16-34)

Regarding claim 23, Liotine et al. disclose the step of generation is carried out using a single object (via receiver 30 generates new code and stored on memory 34). (See Col. 4, line 40-61)

Regarding claim 24, Liotine et al. disclose the step of generation is carried out using two objects (via receiver 30 generates new code and the new code is transmitted to transmitter 9). (See Col. 4, line 40-61; and Col. 5, lines 16-34).

Regarding claim 26, Liotine et al. disclose the step of transmission comprises a point-to-point transmission (via light emitting diode 36 to programming signal receiver 21).

Regarding claim 27, Liotine et al. disclose the point-to-point transmission comprises an action by the user on each point (via closing program mode switch 41 on receiver 30 and placing transmitter 9 in close proximity to the receiver 30). (See Col. 4, lines 40-61)

Regarding claims 30 and 32, Liotine et al. disclose programmable routines for a bidirectional object (receiver 30) adapted to store at least one common key (via code stored on non-volatile memory 34) and at least one piece of information on pairing, comprising: a routine of generating a new common key (via program mode switch 41 on receiver 39 is closed, a new code is generated); a routine of receiving a new common key (via the new code generated stored on memory 34); a routine of receiving a command (via commands from transmitter 9). (See Col. 1, line 33 to Col. 2, line 6; Col. 2, line 44 to Col. 3, line 8; Col. 4, line 40-61; and Col. 5, lines 16-34; and Figures 1-4)

But Liotine et al. failed to explicitly disclose a routine of verifying for a command received from a paired transmitter object, the presence of the common key in the transmitter object; and a routine of refusing to execute the command if the verification is negative.

Heitschel et al. teach a method of operating a door actuating system using a remote transmitter (24). The remote transmitter (24) transmits a door actuation signal comprising a sequence of coded words, which must match a sequence of allowable

coded words stored in a controlled unit (38) of the actuating system in order to operate the door. (See Col. 3, lines 38-56)

From the teachings of Heitschel et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the programmable routines of Liotine et al. to include a routine of verifying for a command received from a paired transmitter object, the presence of the common key in the transmitter object; and a routine of refusing to execute the command if the verification is negative in order to prevent unauthorized commands from other transmitters.

Regarding claim 31, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose a routine of verifying for a given pairing is implemented only when a first command is received.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include the step of verifying for a given pairing is implemented only when a first command is received in order to make sure there are no problems with the new common key to be used on the system

Regarding claim 33, Liotine et al. disclose the routine of generating comprises a sub-routine of transmitting a command (via programming signal) to generate the common key to another object. (See Col. 5, lines 30-40)

Regarding claim 34, Liotine et al. disclose a routine of transmitting a new common key (via light emitting diode 36) to another object. (See Col. 4, lines 40-61)

Regarding claim 36, Liotine et al. disclose programmable routines for a bidirectional object (via transmitter 9) adapted to store at least one common key (via code on memory 18) and at least one piece of information on pairing, comprising: a routine of receiving of a new common key (via programming signal receiver 21 receives the information from a light emitting diode 36). (See Col. 1, line 33 to Col. 2, line 6; Col. 2, line 44 to Col. 3, line 8; Col. 4, line 40-61; and Col. 5, lines 16-34; and Figures 1-4)

But Liotine et al. failed to explicitly disclose a routine of transmitting of a command to a targeted paired object, and a routine of verifying the presence of the common key in the targeted object.

Heitschel et al. teach a method of operating a door actuating system using a remote transmitter (24). The remote transmitter (24) transmits a door actuation signal comprising a sequence of coded words, which must match a sequence of allowable coded words stored in a controlled unit (38) of the actuating system in order to operate the door. (See Col. 3, lines 38-56)

From the teachings of Heitschel et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the programmable routines of Liotine et al. to include a routine of transmitting of a command to a targeted paired object in order to send a control signal, and a routine of verifying the presence of the common key in the targeted object in order to make sure the targeted object is the correct object to send the command to.

Regarding claim 37, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose the routine of verifying for a given pairing is implemented only when the first command is transmitted.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include the routine of verifying for a given pairing is implemented only when a first command is transmitted.

Regarding claim 38, Liotine et al. disclose a routine of generating of a new common key (via light emitting diode 36). (See Col. 4, lines 40-61)

Regarding claim 39, Liotine et al. disclose the routine of generating comprises a sub-routine of transmitting of a command (via programming signal) to generate the common key to another object. (See Col. 5, lines 30-40)

Regarding claim 40, Liotine et al. disclose a routine of transmitting of a new common key to another object (via light emitting diode 36). (See Col. 4, lines 40-61)

Regarding claim 42, Liotine et al. disclose a bidirectional object (via receiver 30), having a receiving stage (via RF receiver 32); a transmitting stage (via programming signal transmitter 36); a logical unit (via microcomputer 33) controlling the receiving stage and the transmitting stage; and a memory (via memory 34). (See Figure 3)

Liotine et al. in view of Heitschel et al. (See rejection on claim 30 above) further disclose programmable routines for a bidirectional object adapted to store at least one common key and at least one piece of information on pairing, said program comprising: a routine adapted to receive a new common key; a routine adapted to receive a

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command; a routine adapted to verify a command received from a paired transmitter object of the presence of the common key in the transmitter object; and a routine adapted to refuse execution of the command if the verification is negative.

But the combination of Liotine et al. and Heitschel et al. failed to disclose the programmable routines are programmed and stored on a memory.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to program the routines and store them on a memory in order to execute them on the receiver.

10. Claims 25, 28, 35, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liotine et al. in view of Heitschel et al. as applied to claims 22, 30, and 36 above, and further in view of Clark et al. (US 5,148,159).

Regarding claim 25, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose the step of transmission comprises a point to multipoint transmission.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include the step of transmission comprising a point to

multipoint transmission in order to increase the number of available objects for operation.

Regarding claim 28, the combination of Liotine et al. and Heitschel et al. disclose a point-to-point transmission (via light emitting diode 36 to programming receiver 21) in a sub-group of the objects (See Liotine et al., Col. 4, lines 40-61) but failed to disclose a point to multipoint transmission to another sub-group of the objects.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include a point to multipoint transmission to another sub-group of the objects in order to increase the number of compatible objects for operation.

Regarding claim 35, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose a routine of transmitting a new common key to more than one object.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include transmitting a new common key to more than one object in order to increase the number of available objects for operation.

Regarding claim 41, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose a routine of transmitting a new common key to several other objects.

Clark et al. teach a remote control system including one or more portable units and a base unit, which employs identification codes for security. The base unit teaches the identification code to one or more portable units. (See the Abstract and Col. 2, line 65 to Col. 3, line 35)

From the teachings of Clark et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Liotine et al. and Heitschel et al. to include transmitting a new common key to several other objects in order to increase the number of available objects for operation.

11. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liotine et al. in view of Heitschel et al. as applied to claim 22 above, and further in view of Little et al. (US 7,046,991).

Regarding claim 29, the combination of Liotine et al. and Heitschel et al. disclose the structural elements of the claimed invention but failed to disclose when the new common key of an object is transmitted to another object, verification that the two objects contain the old common key.

Little et al. teach a system and method for supporting multiple certification authorities on a communication device. The certification authority provides keys to a mobile device to encrypt information for communication, if the new key generated is not stored properly by the mobile device, then the old key may be used to generate a new key for communication. (See the Abstract and Col. 4, lines 13-38)

From the teachings of Little et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Litotine et al. and Heitschel et al. to include when the new common key of an object is transmitted to another object, verification that the two objects contain the old common key in order to provide a backup in case the new common key generated was not stored properly and operation is not possible.

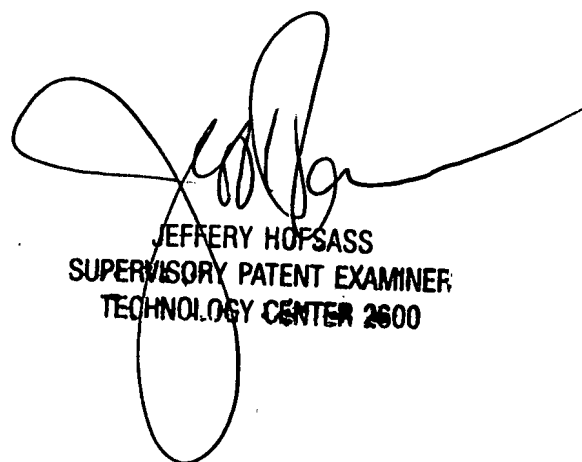
Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Hang Jiang whose telephone number is 571-270-3024. The examiner can normally be reached on M-F 7:30 am to 5:30 pm alternate fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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